

# Latest Version: 8.0

## Question: 1

### HOTSPOT

You create a new IoT device named device1 on iothub1. Device1 has a primary key of Uihuih76hbHb. How should you complete the device connection string? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

HostName=  .  ;DeviceId=  :SharedAccessKey=Uihuih76hbHb

azure-devices.net	azure-devices.net	azure-devices.net
criticalep	criticalep	criticalep
device1	device1	device1
iothub1	iothub1	iothub1
tracestate	tracestate	tracestate

**Answer:**

HostName=  .  ;DeviceId=  :SharedAccessKey=Uihuih76hbHb

azure-devices.net	azure-devices.net	azure-devices.net
criticalep	criticalep	criticalep
device1	device1	device1
iothub1	iothub1	iothub1
tracestate	tracestate	tracestate

Explanation:

Box 1: iothub1

The Azure IoT hub is named iothub1.

Box 2: azure-devices.net

The format of the device connection string looks like:

HostName={YourIoTHubName}.azure-devices.net;DeviceId=MyNodeDevice;SharedAccessKey={YourSharedAccessKey}

Box 1: device1

Device1 has a primary key of Uihuih76hbHb.

Reference:

<https://docs.microsoft.com/en-us/azure/iot-hub/quickstart-control-device-dotnet>

## Question: 2

What should you do to identify the cause of the connectivity issues?

- A. Send cloud-to-device messages to the IoT devices.
- B. Use the heartbeat pattern to send messages from the IoT devices to iothub1.
- C. Monitor the connection status of the device twin by using an Azure function.
- D. Enable the collection of the Connections diagnostics logs and set up alerts for the connected devices count metric.

**Answer: D**

Explanation:

Scenario: You discover connectivity issues between the IoT gateway devices and iothub1, which cause IoT devices to lose connectivity and messages.

To log device connection events and errors, turn on diagnostics for IoT Hub. We recommend turning on these logs as early as possible, because if diagnostic logs aren't enabled, when device disconnects occur, you won't have any information to troubleshoot the problem with.

Step 1:

1. Sign in to the Azure portal.
2. Browse to your IoT hub.
3. Select Diagnostics settings.
4. Select Turn on diagnostics.
5. Enable Connections logs to be collected.
6. For easier analysis, turn on Send to Log Analytics (see pricing).

Step 2:

Set up alerts for device disconnect at scale

To get alerts when devices disconnect, configure alerts on the Connected devices (preview) metric.

Reference:

<https://docs.microsoft.com/bs-cyrl-ba/azure/iot-hub/iot-hub-troubleshoot-connectivity>

### Question: 3

You plan to deploy Azure Time Series Insights.

What should you create on iothub1 before you deploy Time Series Insights?

- A. a new message route
- B. a new consumer group
- C. a new shared access policy
- D. an IP filter rule

**Answer: B**

Explanation:

Create a dedicated consumer group in the IoT hub for the Time Series Insights environment to consume from. Each Time Series Insights event source must have its own dedicated consumer group that isn't shared with any other consumer. If multiple readers consume events from the same consumer group, all readers are likely to exhibit failures.

Reference:

<https://docs.microsoft.com/en-us/azure/time-series-insights/time-series-insights-how-to-add-an-event-source- iothub>

### Question: 4

How should you complete the GROUP BY clause to meet the Streaming Analytics requirements?

- A. GROUP BY HoppingWindow(Second, 60, 30)

- B. GROUP BY TumblingWindow(Second, 30)
- C. GROUP BY SlidingWindow(Second, 30)
- D. GROUP BY SessionWindow(Second, 30, 60)

**Answer: B**

Explanation:

Scenario: You plan to use a 30-second period to calculate the average temperature reading of the sensors.

Tumbling window functions are used to segment a data stream into distinct time segments and perform a function against them, such as the example below. The key differentiators of a Tumbling window are that they repeat, do not overlap, and an event cannot belong to more than one tumbling window.

InAnswers:

A: Hopping window functions hop forward in time by a fixed period. It may be easy to think of them as Tumbling windows that can overlap, so events can belong to more than one Hopping window result set.

Reference:

<https://docs.microsoft.com/en-us/azure/stream-analytics/stream-analytics-window-functions>

**Question: 5**

HOTSPOT

You need to use message enrichment to add additional device information to messages sent from the IoT gateway devices when the reported temperature exceeds a critical threshold.

How should you configure the enrich message values? To answer, select the appropriate options in the answer area.

NOTE: Each correct selection is worth one point.

**Answer Area**

<div style="border: 1px solid #ccc; padding: 2px; margin-bottom: 5px;">▼</div> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>\$iothubname</td></tr> <tr><td>\$twin</td></tr> <tr><td>\$twin.properties</td></tr> <tr><td>\$twin.results</td></tr> <tr><td>\$twin.tags</td></tr> </table>	\$iothubname	\$twin	\$twin.properties	\$twin.results	\$twin.tags	.	<div style="border: 1px solid #ccc; padding: 2px; margin-bottom: 5px;">▼</div> <table border="1" style="width: 100%; border-collapse: collapse;"> <tr><td>desired.pressure</td></tr> <tr><td>fanSpeed.reported</td></tr> <tr><td>reported.fanSpeed</td></tr> <tr><td>temperature</td></tr> <tr><td>temperature.reported</td></tr> </table>	desired.pressure	fanSpeed.reported	reported.fanSpeed	temperature	temperature.reported
\$iothubname												
\$twin												
\$twin.properties												
\$twin.results												
\$twin.tags												
desired.pressure												
fanSpeed.reported												
reported.fanSpeed												
temperature												
temperature.reported												

**Answer:**

## Answer Area

	▼	.		▼
\$iothubname			desired.pressure	
\$twin			fanSpeed.reported	
\$twin.properties			reported.fanSpeed	
\$twin.results			temperature	
\$twin.tags			temperature.reported	

Reference:

<https://docs.microsoft.com/bs-cyrl-ba/azure/iot-hub/iot-hub-message-enrichments-overview>